



National Technical Systems  
Environmental & Dynamics Lab  
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**Date:** 07 NOVEMBER 2018

**Customer:**  
Pro V&V, Inc.  
700 Boulevard South  
Suite 102  
Huntsville, AL 35802

**Purchase Order Number:** 2018-011

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- A. TEST: Temperature/Power Variation Testing
- B. TEST ITEMS: ClearCast Voting Machine  
See page 3 for Test Item Identification
- C. SPECIFICATIONS:
1. Quotation Number OP0503579-0
  2. ISO 17025:2005
  3. MIL-STD-810G

D. RESULTS:

This is to certify that the ClearCast Voting Machine was subjected to the Temperature/Power Variation Test according to the above specifications.

See Page 3 for Summary of Test Results. The test sample was returned to Pro V&V for post-tests and final evaluation.

Test data, an equipment list, and photographs are attached.

A handwritten signature in black ink, appearing to read "Greg Gagne".

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Greg Gagne,  
Technical Report Writer

A handwritten signature in black ink, appearing to read "Robert Polverari".

Bob Polverari,  
Technical Reviewer

**REVISIONS**

<b>Revision</b>	<b>Reason for Revision</b>	<b>Date</b>
NR	Initial Release	07 November 2018

**TEST ITEM IDENTIFICATION**

Quantity	Sample Description	Serial Numbers
2	ClearCast Voting Machine	CASTD002010
		CASTD002009

**SUMMARY OF TEST RESULTS**

Upon completion of testing, the test samples were removed from the test fixture and subjected to a visual inspection. No anomalies were noted. The Test Samples were returned to Pro V&V.

**Temperature/Power Variation Testing**

Testing was started on 22 October 2018 and completed on 26 October 2018 by exposing two (2) test samples to Power Variation testing. The samples were subjected to this testing in accordance with Quotation Number OP0503579-0 and Methods 502.2 and 501.2 of MIL-STD-810G.

The test samples were placed in the chamber and exposed to voltage and temperature variances with a 4-hour dwell per sequence, noting that the power varies every 4 hours for two (2) 24 hour cycles, with the temperature varying every 12 hours for two (2) 24 hour cycles

Testing was started at 117 VAC/+10°C for a 4-hour dwell, lowered to 105 VAC (4-hour dwell), raised to 129 VAC (4-hour dwell), and finally lowered to 117 VAC/+35°C (4-hour dwell). This cycle was repeated three (3) additional times, then temperature was ramped to ambient (+23°C) and testing continued for 37 hours. Testing was completed as indicated in the test log below.



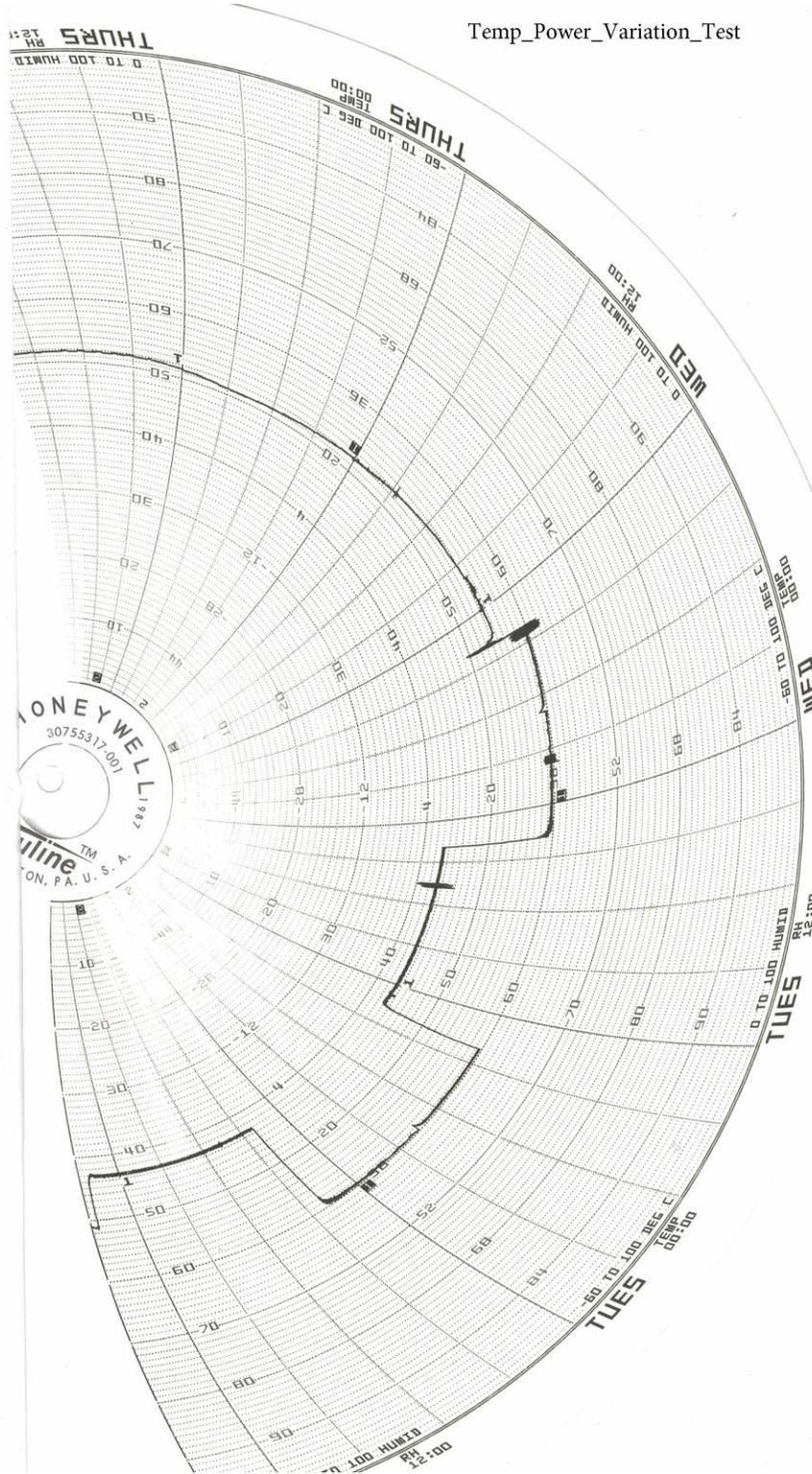
**TEST LOG**

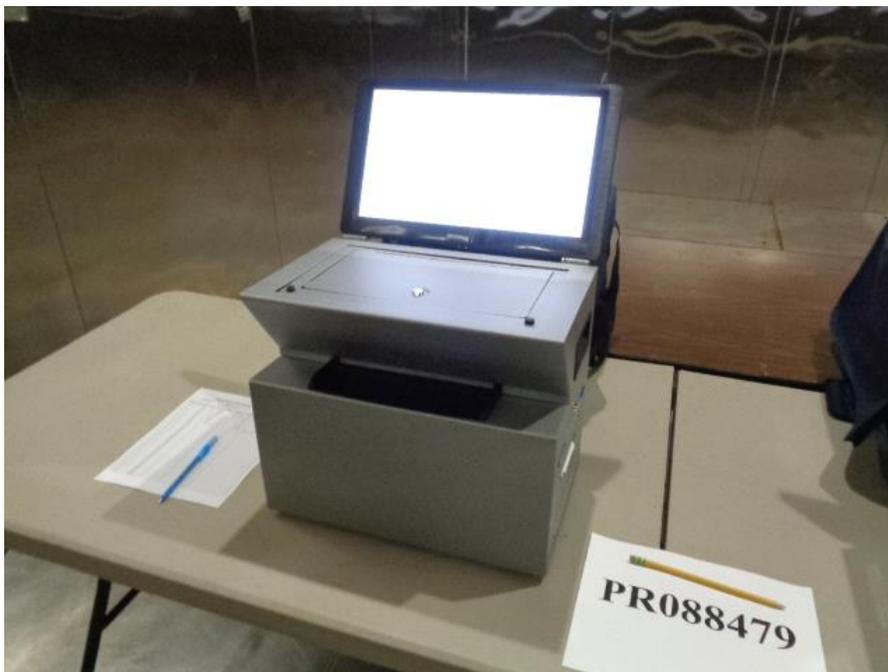
TEST <u>Temperature Power Variation Test</u>		MJO <u>PR088479</u>	
CUSTOMER <u>Pro V&amp;V Inc</u>	P/N <u>N/A</u>	S/N <u>See Below</u>	
TEST ITEM <u>ClearVote 1.5</u>			
SPECIFICATION <u>MIL-STD-810D</u>		PARA <u></u>	
DATE	TIME	LOG ENTRIES	INITIALS
		Serial Numbers - CASTD002009, CASTD002010	
10/22/18	11:00	Set VAC to 117vlts	RSP
	11:15	Set temperature to +10c & dwell for 4hrs	RSP
	15:15	Lower VAC to 105vlts & dwell for 4hrs	RSP
	19:15	Raise VAC to 129vlts & dwell for 4hrs	KM
	23:15	Lower VAC to 117vlts & Raise temperature to +35c & dwell for 4hrs	KM
10/23/18	03:15	Lower VAC to 105vlts & dwell for 4hrs	KM
	07:15	Raise VAC to 129vlts & dwell for 4hrs	MN
	11:15	Lower VAC to 117vlts & Lower temperature to +10c & dwell for 4hrs	RSP
	15:15	Lower VAC to 105vlts & dwell for 4hrs	RSP
	19:15	Raise VAC to 129vlts & dwell for 4hrs	KM
	23:15	Lower VAC to 117vlts & Raise temperature to +35c & dwell for 4hrs	KM
10/24/18	03:15	Lower VAC to 105vlts & dwell for 4hrs	KM
	07:15	Raise VAC to 129vlts & dwell for 4hrs	RSP
	11:15	Lower VAC to 117vlts & ramp to +23c ambient	RSP
		Temp and power variation portion of test has completed	KM
		Test will continue to run at +23c ambient for 37hrs	KM
10/26/18	00:30	Test Complete	KM
		Note:All test pass or fail determinations decided by Pro V&V Inc.	
PAGE <u>1</u> OF <u>1</u>		TEST BY <u>Kerry Martin</u>	DATE <u>10/26/18</u>
		ENGINEER <u></u>	GOV'T QAR <u>N/A</u>



### TEST DATA

Temp\_Power\_Variation\_Test



**TEST SETUP**







**END OF REPORT**